CLAIMS

1   1.   A method of providing anonymous digital cash, said method comprising:

2   providing an entity with a secure co-processor;

3   a user establishing a secure channel to a program running on said coprocessor;

4   and

5   the user sending a coin to be digitally signed to the coprocessor using any

6   secure digital signature algorithm.

1   2.   A method according to Claim 1, further comprising the steps of:

2   the processor providing a signature to authenticate;

3   the user using said coin for payment to a merchant; and

4   the merchant returning the signed coin to the entity for credit to an account of

5   the merchant.

1   3.   A method of creating and managing electronic cash, comprising the steps:

2

3   a customer communicating to a secure cryptography generator an encryption scheme

4   and a cash amount;

5   establishing a unit representing the cash amount;

6   signing the unit;

7   using the secure cryptography generator to encrypt the signed unit using the

8   encryption scheme;

9   storing in a database the encrypted signed unit and a value for the unit;

10   transmitting the encrypted signed unit to the customer;

11   the customer decrypting the encrypted signed unit to obtain the signed unit; and

12   using the signed unit as a payment.

1   4.   A method according to Claim 3, further including the steps of:

2   establishing an expiration date for the unit; and

3   storing the expiration date in the database.

1   5   A method according to Claim 3, wherein the signing step includes the step of

2   using the secure cryptography generator to sign the unit.

1   6.   A method according to Claim 3, wherein the signing step includes the step of

2   signing the unit with a non-homomorphic signature.

1   7.   A system for creating and managing electronic cash, comprising the steps:

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3   a secure cryptography generator, including means for receiving an encryption scheme

4   and a cash amount from a customer;

5   means for establishing a unit representing the cash amount;

6   means for signing the unit;

7   wherein the secure cryptography generator encrypt the signed unit using the

8   encryption scheme;

9   a database for storing the encrypted signed unit and a value for the unit;

10   means for transmitting the encrypted signed unit to the customer; and

11   means for the customer to decrypt the encrypted signed unit to obtain the signed unit,

12   wherein the customer is able to use the signed unit as a payment.

1   8.   A system according to Claim 7, further including means for establishing an

2   expiration date for the unit, and wherein

3   the expiration date is stored in the database.

1   9.   A system according to Claim 7, wherein the secure cryptography generator

2   includes means for signing the unit.

1 10.   A system according to Claim 7, wherein the means for signing includes means
2 for signing the unit with a non-homomorphic signature.

1 11.   A program storage device readable by machine, tangibly embodying a program
2 of instructions executable by the machine to perform method steps for creating and
3 managing electronic cash, said method steps comprising:
4
5 using a secure cryptography generator to receive from a customer an encryption
6 scheme and a cash amount;
7 establishing a unit representing the cash amount;
8 signing the unit;
9 using the secure cryptography generator to encrypt the signed unit using the
10 encryption scheme;
11 storing in a database the encrypted signed unit and a value for the unit;
12 transmitting the encrypted signed unit to the customer;
13 decrypting the encrypted signed unit to obtain the signed unit; and
14 using the signed unit as a payment.

1 12.   A program storage device according to Claim 11, wherein said method steps
2 further include the steps of:
3 establishing an expiration date for the unit; and
4 storing the expiration date in the database.

1 13.   A program storage device according to Claim 11, wherein the signing step
2 includes the step of using the secure cryptography generator to sign the unit.

1 14.   A program storage device according to Claim 13, wherein the signing step
2 includes the step of signing the unit with a non-homomorphic signature.